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Ensuring Sustainability of Public Transport System through Rational Management

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Abstract

This paper presents a research of possibility to improve sustainability of public transport system in the city by implementation of management system. Test of proposed method was done using the example of Naberezhnye Chelny. Conceptual model of system as well as interaction scheme of its program modules were shown. The composite indicator to assess system efficiency was proposed. An information-logical model of data as well as process of scientifically based decision making in the sphere of urban public transport routing were described. Such routing approach requires actual information about traffic flows on the city roads and, in the same time, takes into account the minimization of negative environmental impact while keeping index of population mobility.

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1. Introduction

The rapid development of techniques and technology is a characteristic of the global economy for the new millennium and requires substantial amounts of resources. This leads to a growing number of sources, which provoke a negative environmental impact (Tosa *et al.*, 2015). Besides that, globalization processes of industrial

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